

## ABSTRACT

A method for the treatment of systemic lupus erythematosus (SLE) by administering antisense cAMP response element modulator (antisense CREM) to patients with systemic lupus erythematosus. The antisense CREM increases the production of Interleukin-2 (IL-2) which is decreased in SLE patients. Additionally, this invention relates to taking freshly isolated SLE T cells and transfecting them with TCR  $\zeta$  chain construct in a eukaryotic expression vector, at high efficiency by a recently developed nucleoporation technique for the restoration of TCR/CD3-mediated signaling in the  $\zeta$  chain transfected cells. Reconstitution of deficient TCR  $\zeta$  chain can reverse the TCR/CD3-mediated signaling abnormalities as well as the defective IL-2 production in T cells of SLE patients.